Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Currently Amended)   A home link setting method at a time of activating or initializing a home gateway device having a home agent function for accommodating terminals including a first mobile terminal, the home gateway device being connected to a plurality of communication links, the method comprising:

responsive to activating or initializing the home gateway device, connecting the home gateway device ~~establishing, by the home gateway device, connections~~ with the plurality of communication links, by the home gateway device;

transmitting, by the home gateway device, a solicitation message requesting network information for setting a home network to the plurality of connected communication links;

receiving, by the home gateway device, an advertisement message including the network information;

selecting, by the home gateway device, a home link from among the plurality of connected communication links other than a communication link which has received the network information; and

executing, by the home gateway device, an internal setting so as to conduct the home agent function with respect to a mobile terminal on the home link.

2.   (Previously Presented) The home link setting method according to claim 1,

wherein in said selecting of the home link, a respective communication link to which the first mobile terminal complying with a mobile IP protocol is connected is designated as the home link.

3.   (Previously Presented) The home link setting method according to claim 2, wherein the first mobile terminal is connected to the respective communication link connecting to a communication interface,

wherein in said execution of the internal setting, when home agent information meets conditions specified by the network information, the internal setting is executed using acquired home agent information, whereas when the home agent information does not meet the conditions, the internal setting is executed using home agent information generated based on the network information.

4.   (Previously Presented) The home link setting method according to claim 3,

wherein in said execution of the internal setting, when the internal setting is executed using the home agent information which is newly generated, a notification of the newly generated home agent information is given to all of the mobile terminals on the home link.

5.   (Previously Presented) The home link setting method according to claim 3, further comprising:

acquiring information concerning a mobile router function stored in the first mobile terminal,

wherein when the first mobile terminal performs a mobile router operation, a setting of a home agent corresponding to the mobile router is executed.

6.   (Currently Amended) A home gateway device having a home agent function for accommodating terminals including a first mobile terminal, comprising:

plural communication links connected to an Internet network or a local link;

a network information processing unit transmitting a solicitation message requesting network information for setting a home network to the plural communication links and receiving an advertisement message including the network information;

an interface setting unit selecting a home link from among the plural communication links other than a communication link which has received the network information to ~~be a~~be the home link;

a home agent processing unit performing a home agent function with respect to mobile terminals on the home link; and

a home agent setting unit executing settings at a time of activating or initializing the home gateway device in said home agent processing unit so as to conduct the home agent function with respect to the mobile terminals on the home link.

7.   (Previously Presented) The home gateway device according to claim 6,

wherein said interface setting unit transmits a verification message for verifying an existence of the first mobile terminal complying with a mobile IP, and designates a respective communication link which has received a message responding to the verification message notifying the existence of the first mobile terminal, as the home link.

8.   (Previously Presented) The home gateway device according to claim 7,

wherein said interface setting unit acquires home agent information stored in one of the mobile terminals connected to the home link, and

wherein when the home agent information meets conditions specified by the network information, said home agent setting unit performs a setting of the home agent function using the acquired home agent information, whereas when the home agent information does not meet the conditions, said interface setting unit generates home agent information based on the network information and said home agent setting unit performs a setting of said home agent processing unit using the generated home agent information.

9.   (Previously Presented) The home gateway device according to claim 8,

wherein when said interface setting unit newly generates the home agent information, said home agent setting unit notifies all of the terminals on the home link of the new home agent information.

10.   (Previously Presented) The home gateway device according to claim 8,

wherein said interface setting unit further acquires information concerning a mobile router function stored in the first mobile terminal, and

wherein when the first mobile terminal performs a mobile router operation, said home agent setting unit executes a setting corresponding to the mobile router in said home agent processing unit.

11.   (Cancelled)

12.   (Currently Amended) A mobile terminal, comprising:

a mobile IP processing unit supporting a mobile IP protocol and receiving a verification message for verifying an existence of the mobile terminal connected on a link;

a home agent information response unit generating a response message including home agent information indicative of a location of a home agent stored in the mobile terminal upon receipt of notification of receipt of the verification message from said mobile IP processing unit,

wherein said mobile IP processing unit of the mobile terminal transmits the response message to a transmission source device which transmitted the verification message ,message, said mobile IP processing unit further transmits another response message in which the state of its mobile router processing is written, wherein the state of its mobile router processing indicates an operation of the mobile terminal between a first mode in which the mobile terminal acts as a mobile router and a second mode in which the mobile terminal does not act as the mobile router.

13.   (Original) The mobile terminal according to claim 12,

wherein when said mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit does not transmit the response message even if the mobile terminal receives the notification of receipt of the verification message from said mobile IP processing unit.

14. (Original) The mobile terminal according to claim 12,

wherein said mobile IP processing unit transmits the response message only when the mobile terminal is connected to a home agent.

15. (Previously Presented) The home link setting method according to claim 4, further comprising:

acquiring information concerning a mobile router function stored in the first mobile terminal,

wherein when the first mobile terminal performs a mobile router operation, a setting of the home agent corresponding to the mobile router is executed.

16. (Previously Presented) The home gateway device according to claim 9,

wherein said interface setting unit further acquires information concerning a mobile router function stored in the first mobile terminal, and

wherein when the mobile terminal performs a mobile router operation, said home agent setting unit executes a setting corresponding to the mobile router in said home agent processing unit.

17. (Currently Amended)   A home link setting method at a time of activating or initializing a home gateway device having a home agent function for accommodating terminals including a first mobile terminal, the home gateway device being connected to a plurality of communication , comprising:

responsive to activating or initializing the home gateway device, connecting the home gateway device establishing, by the home gateway device, connections with the plurality of communication links, by the home gateway device;

transmitting, by the home gateway device, a solicitation message requesting network information for setting a home network to a plurality of communication links;

receiving, by the home gateway device, an advertisement message including the network information for setting the home network through a communication link connected to an Internet network;

selecting, by the home gateway device, a home link from among the connected communication links other than the communication link which has received the network information; and

executing, by the home gateway device, a setting for conducting the home agent function with respect to a mobile terminal on the home link,

selecting, by the home gateway device, one of: (1) a first mode of operation in which the mobile terminal on the selected home link uses home agent information stored in the first mobile terminal for conducting the home agent function or (2) a second mode of operation in which the mobile terminal on the selected home link uses other home agent information for conducting the home agent function, the other home agent information being based on the received network information,

wherein the step of executing the setting causes the mobile terminal on the selected home link to conduct the home agent function in accordance with the selected first or second mode of operation.